

In the Claims:

1. (original) A hydrolytically stable, biologically active conjugate that is the reaction product of a biologically active molecule having a reactive thiol moiety and a water-soluble polymer having an active ethyl sulfone moiety having a reactive site located at the second carbon from the sulfone group and wherein said sulfone moiety forms a linkage with said reactive thiol moiety of said biologically active molecule to form said conjugate.
2. (original) The conjugate of Claim 1 wherein said biologically active molecule is a protein and said reactive thiol moiety is contained within a cysteine moiety of said protein.
3. (original) The conjugate of Claim 1 wherein said water soluble polymer is selected from the group consisting of poly(alkylene oxides), poly(oxyethylated polyols), and poly(olefinic alcohols).
4. (original) The conjugate of Claim 1 wherein said water soluble polymer includes a second active moiety, which may be the same or different from said active sulfone moiety, and wherein said second active moiety forms a linkage with a second biologically active molecule.
5. (original) The conjugate of Claim 1 wherein said biologically active moiety is selected from the group consisting of proteins, pharmaceuticals, cells, vitamins, and combinations thereof.
6. (original) The conjugate of Claim 1 wherein said ethyl sulfone moiety is a haloethyl sulfone.
7. (original) The conjugate of Claim 1 wherein said water soluble polymer is poly(ethylene glycol).
8. (original) A biologically active conjugate that is the reaction product of an activated water soluble polymer having at least one active ethyl sulfone moiety that is selective for reaction with thiol moieties and at least one other moiety that is selective for reaction with

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amino moieties; a first protein having a thiol moiety wherein said thiol moiety forms a hydrolytically stable linkage with said ethyl sulfone moiety on said polymer; and a second protein having an amino moiety wherein said amino moiety forms a linkage with said other moiety on said polymer.

9. (original) The conjugate of Claim 8 wherein said first protein contains cysteine units and said second protein contains lysine units.

10. (original) The conjugate of Claim 8 wherein said water soluble polymer is selected from the group consisting of poly(alkylene oxides), poly(oxyethylated polyols), and poly(olefinic alcohols).

11. (original) The conjugate of Claim 8 wherein said conjugate is a dumbbell structure.

12. (original) A hydrolytically stable biologically active conjugate that is the reaction product of biologically active molecules, each having a reactive thiol moiety, and a water soluble polymer having at least two active ethyl sulfone moieties, each active ethyl sulfone moiety having a reactive site located at the second carbon from the sulfone group and wherein said sulfone moieties form a linkage with said reactive thiol moieties of said biologically active molecules to form said conjugate.

Claims 13 – 21 (Cancelled)